CLAIMS

1. A battery apparatus having a case having a width, a thickness and a length; a battery cell disposed at the inside of said case; and a battery-side terminal disposed at a surface of said case and connected to said chargeable battery section, which is mounted while mating a bottom surface positioned at one side in the thickness direction of said case with a mounting surface of a battery mounting section of electronic equipment and then sliding the case in a length direction of said case, so that said battery-side terminal is made contact with a mounting section-side terminal of said battery mounting section, said battery apparatus characterized in that:

at portions on both sides in a width direction of said case, three or more engaging pieces, which extend in said length direction while projecting outwardly in said width direction, and are engaged to engaging claws of said battery mounting section and position a position in a thickness direction of said case at said battery mounting section while mating the bottom surface of said case with said mounting surface and then sliding said case in the length direction of said case, are disposed at spaced intervals in a length direction.

2. The battery apparatus as claimed in Claim 1, characterized in that:

said battery-side terminal is provided an end portion of said case in said length direction,

two of said plurality of engaging pieces are provided on said case at a portion nearer the end portion

in said length direction, and

the rest one of the engaging pieces is provided at a portion close to the engaging piece provided nearer the end portion of said case where said battery-side terminal is located.

3. The battery apparatus as claimed in Claim 1, characterized in that, in a condition in which the battery apparatus is attached to said battery mounting section:

movement of said battery apparatus toward said mounting surface is restricted by mating the bottom surface of said case with the mounting surface of said battery mounting section, and

movement of the battery apparatus in the direction away from the mounting surface is restricted by engaging the engaging pieces with the engaging claws.

4. The battery apparatus as claimed in Claim 1, characterized in that:

said case includes a main body portion extending in the length direction with a uniform size in said width direction, and a bottom portion provided at one of thickness directions at a central portion in the width direction of said main body portion and extending in said length direction with a smaller width size than the width of said main body portion,

said bottom surface is formed with a surface of said bottom portion,

said plurality of engaging pieces are formed by projecting from said bottom surface portion at the both

sides in said width direction,

a plurality of concave portions extending in said length direction are formed by said respective engaging pieces; side surfaces of said bottom surface positioned at both sides in said width direction; and a surface where said main body portion is facing the side surface of the bottom surface, and

each of said respective engaging claws engages with said engaging piece by being inserted into each of said concave portion.

5. The battery apparatus as claimed in Claim 4, characterized in that:

a convex portion projecting outwardly in said width direction is provided at a side face of the bottom portion where at least two of the engaging pieces among the plurality of engaging pieces are positioned, and

said convex portion is formed with a smaller projecting size than said engaging piece.

6. The battery apparatus as claimed in Claim 4, characterized in that:

at least one of said plurality of concave portions includes a stopper barrier for blocking an end portion in the length direction of the concave portion.

7. The battery apparatus as claimed in Claim 1, characterized in that:

said engaging pieces are provided at both side portions in the width direction at the bottom surface of said case.

8. Electronic equipment having a battery mounting section on which a battery apparatus is attached, characterized in that:

said battery apparatus includes a case having a width, a thickness and a length; a battery cell housed in the inside of said case; a bottom surface positioned at one side in a direction of said thickness of said case; and a battery-side terminal disposed at a surface of said case and electrically connected to said battery cell,

three or more engaging pieces extending in a direction of said length while projecting outwardly in a direction of said width are disposed at regular intervals in said length direction at portions on both sides in said width direction of the case,

said battery mounting section includes a mounting section-side terminal making contact with said battery-side terminal; and a mounting surface with which said bottom surface is mated,

said mounting surface has a width of a dimension corresponding to the width of said case, and a length of a dimension greater than the length of said case, and

at portions on both sides in a width direction of said mounting surface on a mounting surface of said battery mounting section, engaging claws, which engage said engaging pieces and position a position of said case in the thickness direction on said mounting surface by matching the width direction and the length direction of said case with the width direction and the length direction of said mounting surface, and mating the bottom surface of said case with said mounting surface, and then

sliding said case in the length direction of said case, are disposed in the number corresponding to that of said engaging pieces.

9. The electronic equipment as claimed in claim 8, characterized in that:

said battery-side terminal is provided at an end portion of said case in said length direction,

two of said plurality of engaging pieces are provided at a portion nearer the end portion of said case in said length direction,

the rest one of the engaging pieces is provided at a portion close to the engaging piece provided nearer the end portion of said case where said battery-side terminal is located,

said mounting section-side terminal is provided at an end portion of said mounting surface in said length direction,

two of said plurality of engaging claws are provided at a portion nearer the end portion of said mounting surface in the length direction, and

the rest one of the engaging claws is provided at a portion close to the engaging claw provided nearer the end portion of said mounting surface where the battery-side terminal is located.

10. The electronic equipment as claimed in claim 8, characterized in that:

movement of said battery apparatus toward said mounting surface is restricted by mating the bottom surface of said case with the mounting surface of said

battery mounting section, and

movement of the battery apparatus in a direction away from the mounting surface is restricted by engaging the engaging pieces with the engaging claws.

11. The electronic equipment as claimed in claim 8, characterized in that:

said case includes a main body portion extending in the length direction with a uniform size in said width direction, and a bottom portion provided at one of thickness directions at a central portion in the width direction of said main body portion and extending in said length direction with a smaller width size than the width of said main body portion,

said bottom surface is formed with a face of said bottom portion,

said plurality of engaging pieces are formed by projecting from said bottom surface portion at the both sides in said width direction,

a plurality of concave portions extending in said length direction are formed by said respective engaging pieces; side surfaces of said bottom surface positioned at both sides in said width direction; and a surface where said main body portion is facing the side surface of the bottom surface, and

said engaging claws engage with said engaging piece by being inserted into each of said concave portion.

12. The electronic equipment as claimed in claim 11, characterized in that:

a convex portion projecting outwardly in said width

direction is provided at a side face of the bottom portion where at least two of the engaging pieces among the plurality of engaging pieces are positioned,

said convex portion is formed with a smaller projecting size than said engaging piece, and

in a condition where said engaging claw engages with said engaging piece, said engaging claw and said convex portion are in contact so that the position of the battery apparatus in the width direction of the case is determined in said battery mounting section.

13. The electronic equipment as claimed in claim 11, characterized in that:

at least one of said plurality of concave portions includes a stopper barrier for blocking an end portion in the length direction of the concave portion.